

Work Order ID 154389***154389***

Page 1

Monday, December 12, 2016 4:20:28 PM

Item ID: D4004-5

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Strap Attachment Bracket

Start Date: 12/14/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 12/19/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: VSDate: 14/12/13

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4004

B

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

1-Cut D3033-144 extrusion to length per D4004-5 detail of dwg D4004

Ensure cut is started at correct place per dwg

Batch: 131913

2-Deburr

DAS
32
9-89
16-12-23

105

0.00

105

Small Fab

Memo

0.02

Small Fab

Drill and c'sink holes as per dwg and trim part to length as required.

DAS
36
9-89
4 0 16-17-15
DAS
19
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
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Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

QC5- Inspect part completeness to step on W/O

0.00

110

QC

Memo

0.01

Quality Control

(4)

17-01-05

DAS
9
9-89

120

Chemical Conversion Coat per QSI005 4.1

0.00

120

HandFinish

Memo

0.02

Hand Finishing

(x4)

8

2017/01/09
BEB

130

QC7-Inspect Chemical Conversion Coat

0.00

130

QC

Memo

0.01

Quality Control

4

DAS
38
9-89

JAN 09 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____																							
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OTHER : _____					

Picklist Print

Monday, December 12, 2016 4:20:35 PM

Page 1
4

Work Order ID: 154389

154389

Parent Item: D4004-5

D4004-5

Parent Item Name: Strap Attachment Bracket

Start Date: 12/14/2016

Required Date: 12/19/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP rev A 09.12.15 new issue EC verified by:DD IPP Rev:B
10.05.17 as per ECN10-562 DD verf:EC IPP Rev:C 12.03.07 as
per dwg rev.b DD verf: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3033-144		Manufactured	No			100	f	389.8540	0.41	1.726316			DAS 32 9-89
D3033-144									**			16-12-22	
Seat Track (\$ per foot)													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST479a		389.854							
				131913		389.854			2.01'				

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



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Root Cause			FAULT CATEGORY					
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong			
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions			
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance			
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect			
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing			
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Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing			
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Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence			
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :						
Misidentified ☐	☐ Past Due							

DQA: _____ Date: _____



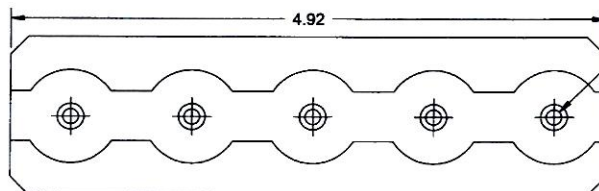
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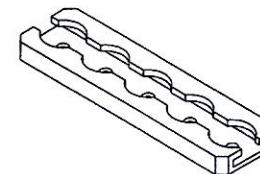
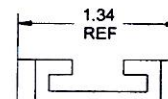
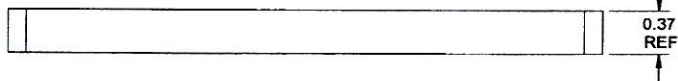
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OTHER : _____					

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4004-5	JCA-M47-2-23



DRILL $\varnothing 0.129$ (#30 DRILL)
CONCENTRIC WITH SEAT TRACK
CSK $\varnothing 0.225 \times 100^\circ$
5 PL

CHAMFER $0.15 \times 45^\circ$
TYP



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 154389

1/2
1/12/13

D4004-5 BOTTOM STRAP ATTACH BRACKET

RELEASED
2012-03-02

NOTES:

- 1) MATERIAL: MADE FROM ANCRA P/N 40456-11-144
OR BROWNLIN P/N 20276-144-0-0
OR D3033-144
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.14 lbs

DESIGN	<i>JS</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>JC</i>		
CHECKED	<i>JS</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>JS</i>	D4004	SHEET 7 OF 11
APPROVED	<i>JS</i>	TITLE	SCALE
DE APPR.	<i>JS</i>	SIDE RESTRAINT	NTS
DATE	12.02.27	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

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